

CHERNOV, A.N.

SAMARIN, A.M., otvetstvennyy redakteur; BANKVITSER, A.L., redaktor izdatel'stva;
RZHEZHIKOV, V.S. , redaktor izdatel'stva; CHERNOV, A.N., redaktor
izdatel'stva; SOMOROV, B.A., tekhnicheskiy redaktor.

[Physicochemical principles of steel production; transactions of
the third conference on physical and chemical elements in steel
production (January 24-29, 1955).] Fiziko-khimicheskie osnovy proiz-
vodstva stali; trudy III konferentsii..: Moskva, Izd-vo Akad.nauk
SSSR, 1957. 799' p. (MLRA 10:6)

1. Konferentsiya po fiziko-khimicheskim osnovam proizvodstva stali.
3d, 1955. Chlen-korrespondent AN SSSR (for Samarin).
(Steel--Metallurgy)

CHERNOV A.N.

LAKEDEMONSKIY, Anatoliy Vladimirovich, KHRYAPIN, Vladimir Yemel'yanovich,;
SHPAGIN, A.I., kand. tekhn. nauk, retsenzent.; DUBINSKIY, S.A., retsenzent;
BABICHEV, V.Z., inzh., retsenzent.; CHERNOV, A.N., red.; KURDOVA,
Ye.I., red. izd-va.; KARASEV, A.I., tekhn, red.

[Soldering and solders] Pisanie i pripoi. Moskva, Gos. nauchno-
tekhn. izd-vo lit-ry chernoi i tsvetnoi metallurgii, 1958. 229 p.
(MIRA 11:11)

(Solder and soldering)

CHERNOV, A.N.

PHASE I BOOK EXPLOITATION SOV/361

Akademiya nauk SSSR. Institut elektronnykh upravlyayushchikh mashin
 Tsirrovoysa tekhnika i vychislitelnyye ustroystva; [Sbornik]
 (Digital, Technique and Computing Devices; Collection of Articles)
 Moscow, Izd-vo Akad. Nauk, 1959. 186 p. Errata slip inserted.
 4,000 copies printed.

Zd.: M.S. Bruk, Corresponding Member, USSR Academy of Sciences;
 Ed. of Publishing House: G.Iu. Shlyapnikov; Tech. Ed.: V.V. Volkov.

PURPOSE: This collection of articles is intended for persons specializing in computer technique.

COVERAGE: Most of the work in this first issue of the collection of articles of the Institute of Electronic Control Machines of the Academy of Sciences, USSR, was carried out during 1958-1959, and was dedicated to digital technique. The institute conducted studies aimed at creating a high-speed memory device of large capacity. One of the results of this work was improvement of the capacity of replacing its static storage device with ferrite memory cores. Other articles concern the use of transistors in digital computers, stability of analog computers equipped with d-c operational amplifiers, and the use of the M-2 computer in solving various problems. But some issues of this collection of articles will present the results of work in physical techniques in mathematical calculations and in control machines and systems of control based on the principle of digital technique. Some personalities are mentioned in the articles.

References accompany some of the articles.

TRUBOV, Yu.N., V.I. Zhdanovskiy, P. A. Kartsev, V.P. Konstantinov,
 and R.P. Shchelkovskiy. Permite Memory Device With 4096 Digital

The authors present a general description of the ferrite core memory device. It has a 4096 word capacity, each word consisting of 36 binary bits, two of which are reserve. The access time is about 30 microseconds; part of this cycle overlaps other computer operations. This memory unit is equipped with 526 electron tubes and 103 additional tubes are used in the power supply. These specific additions constitute a great improvement over the previous memory device, in which the operational electric erasable storage and the ferrite magnetic drum storage had a capacity of 512 binary 36-bit words each, and in which access time was from 37.5 to 50 or more microseconds. It was equipped with 548 electron tubes and 150 additional tubes were used in the power supply. The new ferrite core memory device was developed, tested, and adjusted at the Institute under the General direction of I.S. Bruk. Corresponding Member of the Academy of Sciences, USSR. Preliminary studies were made in 1955-1956 under the direction of O.V. Rozenblit. The essential part of the work was done under the supervision of A. Kartsev by engineers T.M. Aleksandrov, V.B. Borov, Yu.M. Glukhov, V.I. Ivanov, L.V. Ivanov, V.P. Konstantinov, Ye.N. Pilinov, and R.P. Shchelkovskiy; and technicians I.I. Daliyamova, N.S. Zhdanov, V.M. Minayev, M.Ya. Matanzov, Z.N. Sidiakova and V.S. Sokolov. The construction group was under the supervision of A.N. Patrikayev, and the assembly shop was under the direction of A.D. Grechushkin and the mechanical shop of the Institute.

Ivanov, L.V. and Ye.N. Pilinov. Checking Installation Used in the Production and Adjustment of Ferrite Memory Device
 The following checks operations, which are considered indispensable, were carried out during production of the ferrite core memory devices: selection of the cores according to established requirements; testing the finished matrix frame and checking the whole memory device. There is very little reference literature concerning the methods and equipment for carrying out such work and the article was written from material acquired in developing such checking arrangements. This work was done at the Institute and the following persons in addition to the authors of this article participated in it: V.P. Konstantinov, A.I. Pilinov, Matanzov, and V.S. Sokolov. There are two references, both Soviet.

Chernov, A.N. Utilization of a Dynamic Trigger Equipped With a Junction Transistor in Arithmetic Device Circuits
 The author briefly describes the results of his investigation of possibilities of developing a dynamic trigger equipped with a junction transistor and utilizing capacitance as its memory device. He concludes that such triggers can be applied in logical circuits and that their main advantage over static triggers is their use of only one transistor instead of two. Their main disadvantage is their low input resistance.

BAKHALOV, Grigoriy Tikhonovich; TURKOVSKAYA, Anna Vasil'yevna; TEREKHOV,
P.I., kand.tekhn.nauk, retsenzent; CHERNOV, A.N., red.; KAMAYEVA,
O.M., red.izd-va; VAYNSHTEYN, Ye.B., tekhn.red.

[Corrosion and protection of metals] Korroziia i zashchita
metallov. Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1959. 310 p.
(MIRA 12:10)

(Corrosion and anticorrosives) (Metals)

MIKHAYLENKO, Andrey Yakovlevich; KRAPUKHIN, Vsevolod Valer'yevich;
DIOMIDOVSKIY, D.D., prof.-dokt., retsenzent; CHERNOV, A.N.,
red.; ARKHANGEL'SKAYA, M.S., red.izd-va; DOBUZHINSKAYA, L.V.,
tekhn.red.

[Furnaces for nonferrous metallurgy] Pechi tsvetnoi metallur-
gii. Izd.2., ispr. i dop. Moskva, Gos.nauchno-tekhn.izd-vo
lit-ry po chernoi i tsvetnoi metallurgii, 1959. 464 p.

(Metallurgical furnaces) (Nonferrous metals--Metallurgy) (MIRA 13:4)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8

CHERNOV, A.N., inzh.

Review of "Metal parts of cranes." Stroi. i dor. mashinostr. 5
no. 5:37 My '60.
(Cranes, derricks, etc.) (MIRA 14:4)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8"

KRESTOVNIKOV, Aleksandr Nikolayevich; VIGDOROVICH, Vilenin Naumovich;
BELYAYEV, A.I., retsenzent; LEVITSKIY, M.V., kand.khim.nauk,
retsenzent; BURTSEVA, K.G., kand.khim.nauk, retsenzent;
SAVAL'SKIY, S.L., starshiy prepodavatel', retsenzent; CHERNOV,
A.N., red.; KURDOVA, Ye.I., red.izd-va; VAYNSHTEYN, Ye.B.,
tekhn.red.

[Chemical thermodynamics; selected articles for pyrometallurgists]
Khimicheskais termodinamika; izbrannye glavy dlis pirometallurgov.
Moskva, Gos.suchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi
metallurgii, 1961. 280 p.

(MIRA 14:3)

1. Chlen-korrespondent AN SSSR (for Belyayev). 2. Kafedra obshchey i
fizicheskoy khimii Severo-Kavkazskogo gorno-metallurgicheskogo insti-
tuta (for Levitskiy, Burtseva, Saval'skiy).
(Thermodynamics) (Chemistry, Physical and theoretical)

GERASIMOV, Yakov Ivanovich; KRESTOVNIKOV, Aleksandr Nikolayevich; SHAKHOV,
Aleksey Sergeyevich. Prinimali uchastiye: DUDAREVA, A.G., assistant;
LOMOV, A.L., assistant; FEYGINA, Ye.I., assistant; VYGODSKIY, I.A.,
inzh.; KUZNETSOV, F.A., aspirant; LAVRENT'YEV, V.I., aspirant; CHER-
NOV, A.N., red.; KAMAYEVA, O.M., red. izd-va; MIKHAYLOVA, V.V., tekhn.

[Chemical thermodynamics in nonferrous metallurgy] Khimicheskaja ter-
modinamika v tsvetnoi metallurgii. Moskva, Gos. nauchno-tekhn. izd-
vo lit-ry po chernoi i tsvetnoi metallurgii. Vol.2. [Thermodynamics
of copper, lead, tin, silver and their most important compounds; a
handbook] Termodinamika medi, svintsa, olova, serebra i ikh vazhnei-
shikh soedinenij; spravochnoe rukovodstvo. 1961. 262 p.

(Nonferrous metals—Thermal properties)
(Chemistry, Metallurgy)

(MIRA 14.11)

S/799/62/000/002/004/011

AUTHORS: Chernov, A. N., Chumakov, L. Ya., Volodin, Ye. B.

TITLE: Application of dynamic elements with delay lines in parallel-acting arithmetic computing equipments.

SOURCE: Akademiya nauk SSSR. Institut elektronnykh upravlyayushchikh mashin. Tsifrovaya tekhnika i vychislitel'nyye ustroystva. no. 2. 1962, 61-74.

TEXT: The paper describes a method for the achievement of an asynchronous run in an adder, comprising dynamic trigger with delay lines. Inasmuch as the network developed here can be applied not only as a trigger but also as an amplifier with a logical network at the input, the network is termed here a dynamic element. The device examined here may serve in parallel-acting arithmetic equipments. The method is described on the example of its utilization in a dynamic trigger developed at the INEUM (Institute of electronic control machines), AS USSR. The paper provides a brief description of the circuitry of this trigger. The fundamental scheme of a dynamic element with a delay line is described and illustrated with both the logical network of the dynamic cell and the fundamental circuit diagram of the dynamic cell. The time diagrams of signals at various points of the network are adduced, and the conditions necessary for a correct voltage cadence are set forth.

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Application of dynamic elements with....

S/799/62/000/002/004/011

In the analysis of the possible design of logical networks the complete logical network of a binary adder and an element for the remembering of an n-digit binary code are shown schematically. In any design it is essential to take the following peculiarities of a dynamic cell into account: (1) The shaping of pulses occurs within the element itself by means of a regenerative expansion. Therefore, any supplementary logical networks which, for example, are applied for the establishment of the position "1" can be the simplest kind of diode-rheostat networks. Tests of the unit have shown that up to 6 networks can be switched to the input of the element, and each of them can have up to 6 inputs. (2) Upon the opening of the basic feedback circuit, the element transforms into a decoder with a shaper. The decoder at the input of the element must contain logical circuits that are no more complicated than the "and" circuits identified in the paper. (3) A gate constructed on the basis of the dynamic cell affords some inconvenience. It produces a delay by 1 cadence; therefore, in a cascade cut-in of several gates, the time delays may become significant, a fact which occasionally may be advantageous. (4) If the duration of the delay in the dynamic trigger is increased by an integer number of cadences, then the network obtained will be able to remember multi-digit binary numbers and, despite its simplicity, may replace a shifting sender. Such a network may be very useful for the construction of arithmetic equipments and control equipments. Verification was made of an element with 14 cadences, which operated very satisfactorily. A circuit

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Application of dynamic elements with

S/799/62/000/002/004/011

diagram of a multi-phase adding equipment, an adding equipment with pulse expansion and a pulse-expansion unit are shown. The further application of expanded pulses is illustrated on circuit diagrams of multiplication equipment, and the logical network of an adder with memory features is shown. A block diagram of a breadboard of a parallel-acting arithmetic equipment is shown, and experimental data are briefly adduced. There are 13 figures, 1 table, and 5 references (3 Russian-language Soviet and 2 English-language, of which 1 in Russian-language translation).

Card 3/3

POLYAKOV, V.I., kand. tekhn. nauk; CHERNOV, A.N., inzh.

The KB-60 tower crane. Mekh. stroi. 19 no.8:25-26 Ag '62.

(Cranes, Derricks, Etc.) (MIRA 16:7)

ODING, I.A., otv. red.; PLOTKIN, S.A., red.; CHERNOV, A.N., red.;
GUSEVA, A.P., tekhn. red.

[Strength of metals under cyclical variations of stress]
Prochnost' metallov pri peremennykh nagruzkakh; materialy.
Moskva, Izd-vo AN SSSR, 1963. 299 p. (MIRA 17:1)

1. Soveshchaniye po ustalosti metallov, 3d, 1962. 2. Chlen-korrespondent AN SSSR (for Oding).

ACCESSION NR: AP4000984

S/0182/63/000/011/0007/0010

AUTHOR: Golovanenko, S. A.; Chernov, A. N.; Gulyayev, V. V.

TITLE: Hot extrusion of shapes from steels and alloys

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 11, 1963, 7-10

TOPIC TAGS: hot extrusion, shape extrusion, steel shape extrusion, alloy shape extrusion, steel extrusion, alloy extrusion, extrusion pressure, extrusion temperature, extrusion constant, flow stress, extrusion speed, extrusion rate, stainless steel extrusion, heat resistant alloy extrusion, extrusion lubricant, glass lubricant

ABSTRACT: A series of shapes (see Fig. 1 in the Enclosure) of the difficultly workable steels (cross-sections of 2.0-11.9 cm²) St. 3, Kh18N9T, 1Kh15N24V4T, and the alloy EI437B were obtained under semi-technical conditions by hot extrusion at 800 and 1500 metric tons. The extruded profiles were characterized by purity, equal to that of hot-rolled shapes and high mechanical properties. While studying the effect of the extrusion rate, it was proven that extrusion rates above 100 mm/second markedly decrease the cooling of the billet and improve the working conditions of the glass lubricant. In this way, the strain of extrusion was reduced and, to some extent, the corrosion resistance of the die was increased. A special heat resistant alloy is recommended for extrusion of

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ACCESSION NR: AP4000984

complicated profiles. For extrusion of simple profiles, the steel R18 is recommended as satisfactory for the production of dies. The resistance properties of materials used for the production of matrices have been evaluated. Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: TsNIIChM

SUBMITTED: 00

DATE ACQ: 30Dec63

ENCL: 01

SUB CODE: ML

NO REF SOV: 001

OTHER: 000

Card 2/p 2

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8

GOLOVANENKO, S.A.; CHERNOV, A.N.; SAPOZHNIKOV, V.M.; SINITSYN, V.G.;
GULYAYEV, V.V.

Extrusion of bimetal shapes. Kuz.-shtam. proizv. 5 no.10:
7-9 0 '63. (MIRA 16:11)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8"

ACCESSION NR: AP4019027

s/0182/64/000/002/0045/0047

AUTHORS: Grishkov, A. I.; Chernov, A. N.; Gulyayev, V. V.

TITLE: Pressure indicator for high speed hydraulic presses

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 2, 1964, 45-47

TOPIC TAGS: hydraulic press, pressure indicator, stamping, manometer, recording manometer, foil indicator

ABSTRACT: A pressure indicator was designed by TsNIIChM for measuring the force applied and the pressing velocity in the 150-ton hydraulic press P664B used for hot stamping of ferrous metals and alloys at up to 300 mm/sec. The working principle of the indicator is based on the variation in the elastic deformation of a thin-walled container under the action of the internal pressure of the liquid inflowing from the main cylinder of the hydraulic press. The pressure indicator (see Fig. 1 of the Enclosure) consisted of a block (1) and a cup (5) with thin elastic walls and a rigid bottom. The cup is attached to (1) by the nut (2). Two foil indicators (4) are fixed to the thin wall and two (6) to the rigid bottom of the cup. All the indicators are lacquered and covered with lacquer-saturated

ACCESSION NR: AP4019027

cloth. The terminals of the bridge so formed are led to a 4-prong junction on the casing(?). The measurements obtained with this device are quite accurate and the device itself is simple, compact, and stable. It can be used for measuring pressures in various hydraulic mechanisms with working speeds up to 300-400 mm/sec. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 27Mar64

ENCL: 01

SUB CODE: MM

NO REF Sov: 001

OTHER: 000

Card 2/3

ACCESSION NR: AP4019027

ENCLOSURE: 01

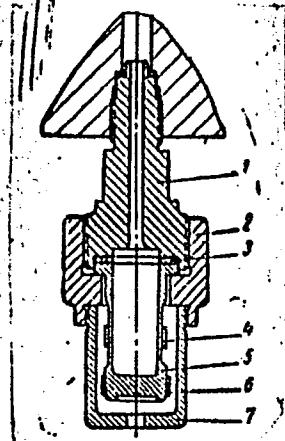


Fig. 1. Sectional view of the pressure indicator.

1. - block; 2. - nut; 3. - gasket; 4. - foil indicator; 5. - cup;
6. - compensating foil indicators; 7. - protective casing.

Card 3/3

CHERNOV, A.N.; GULYAYEV, V.V.

Method of determining the adhesive strength of layers in round bimetallic profiles. Zav. lab. 30 no.11:1394 '64 (MIRA 18:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I.P. Bardina.

PLAKSIN, I.N., otv. red.; CHERNOV, A.N., red.

[Physicochemical principles of the action of nonpolar collectors during the flotation of ores and coal] Fiziko-khimicheskie osnovy deistviia apoliarnykh sobiratelei pri flotatsii rud i uglei. Moskva, Nauka, 1965. 94 p.
(MIRA 18:4)

1. Moscow. Institut gornogo dela imeni A.A.Skochinskogo.
2. Chlen-korrespondent AN SSSR (for Plaksin).

BANNYKH, Oleg Aleksandrovich; KOVNERISTYY, Yuliy Konstantinovich;
ZUDIN, Ivan Feofanovich, PRIDANTSEV, M.V., prof., doktor tekhn. nauk
otv.red.; CHERNOV, A.N., red.
[heat-resistant chromium-manganese steel with aluminum]
Khromomargantsovistye teploustoichivye stali s aliuminiem.
Moskva, Nauka, 1965. 101 p. (MIRA 18:3)

SVIDERSKAYA, Zoya Andreyevna; ROKHLIN, Lazar' Leonovich; DRITS,
M.Ye., doktor tekhn. nauk, ctv. red.; CHERNOV, A.N., red.

[Magnesium alloys containing neodymium] Magnievye splavy,
soderzhashchie neodim. Moskva, Nauka, 1965. 137 p.
(MJRA 18:7)

YEGOROV, N.S., kand. tekhn.nauk, otd. red.; CHERNOV, A.N., red.

[Coal preparation by gravity methods] Obogashchenie uglei
gravitatsionnymi metodami. Moskva, Nauka, 1965. 138 p.
(MIRA 18:8)

l. Moscow. Institut goryuchikh iskopayemykh.

DRITS, M.Ye., doktor tekhn. nauk, otd. red.; BOGVAR, A.A., akademik, red.; BELOV, A.F., doktor tekhn. nauk, red.; DOBATKIN, V.I., doktor tekhn. nauk, red.; MAL'TSEV, M.V., doktor tekhn. nauk, red.; FRIDLYANDER, I.N., doktor tekhn. nauk, red.; SVIDERSKAYA, Z.A., kand. tekhn. nauk, red.; YELAGIN, V.I., kand. tekhn. nauk, red.; BARBANEL', R.I., kand. tekhn. nauk, red.; SHAROV, M.V., kand. tekhn. nauk, red.; KADANER, E.S., kand. tekhn. nauk, red.; TROKHOVA, V.F., red.; CHERNOV, A.N., red.

[Metallography of light alloys] Metallovedenie legkikh splavov. Moskva, Nauka, 1965. 226 p. (MIRA 18:10)

1. Moscow. Institut metallurgii.

ACC NR: AP6006352

(A)

SOURCE CODE: UR/0413/66/000/002/0090/0090

AUTHORS: Pritsker, Z. I.; Chernov, A. N.

ORG: none

TITLE: Device for controlling power hydraulic cylinders. Class 35, No. 178084
announced by Main Spacial Structural Bureau for Automatic Loaders of the State
Committee of Heavy, Power, and Transport Machine Construction for Gosplan, SSSR
(Golovnoye spetsial'noye konstruktorskoye byuro po avtopogruzchikam
gosudarstvennogo komiteta tyazhelogo, energeticheskogo i transportnogo
mashinostroyeniya pri gosplane SSSR)

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 90.

TOPIC TAGS: hydraulic device, hydraulic equipment, automation equipment

ABSTRACT: This Author Certificate presents a device for controlling power hydraulic cylinders, which contains a distributor, a feedback valve, a throttle, and a valve regulator of the cylinder shaft downstroke velocity, all connected by channels. To utilize the device for both single and double action power hydraulic cylinders (with provision for constant downstroke velocity of the cylinder shaft and for prevention of spontaneous return stroke of this shaft) and to discharge the working liquid with hydraulic line rupture, the surface of the valve regulator plunger which closes the path of the working liquid between the feedback valve and the

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ACC NR: AP6006352

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throttle is beveled (see Fig. 1).

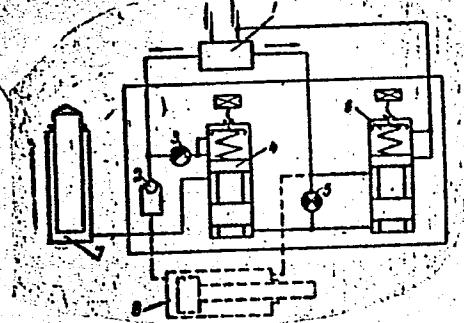


Fig. 1. 1 - Four-port distributor; 2 - feedback valve; 3 - throttle;
4 - valve regulator; 5 - damper; 6 - overflow valve; 7 - single
action power cylinder; 8 - double action power cylinder.

The plunger rests on the valve seat of the regulator housing with no pressure in the cavity of this regulator. The cavity of the feedback valve is connected to the cavity of the power cylinder. The throttle is connected to the distributor along the main line of the forward stroke. The regulator is connected in the main line

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ACC NR: AP6006352

of the return stroke and serves as a hydraulic cutoff. The regulator cavity is connected through a damper to an overflow valve to produce the command pressure to the hydraulic cutoff from the distributor which has four ports. Orig. art. has: 1 diagram.

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APPROVED FOR RELEASE: 06/12/2000

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L 36139-66 EWP(e)/EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k), IJP(c) JD/HM/HW

ACC NR: AT6016765

(N)

SOURCE CODE: UR/2776/65/000/042/0092/0100 4/2

AUTHOR: Chernov, A. N.; Golovanenko, S. A.; Gulyayev, V. V.

110
8+1

ORG: none

TITLE: Features of the fabrication of bimetal shapes by the hot pressing method

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 42, 1965, Proizvodstvo bimetallov (Production of bimetals), 92-100

TOPIC TAGS: chromium steel, nickel steel, bimetal, metal extrusion, metal pressing /
Kh18N9T steel, St. 3 steel

ABSTRACT: The article describes the experimental study of the hot pressing of bimetal shapes performed at the Scientific Research Institute of Ferrous Metallurgy in 1963. The technique employed was that of direct extrusion in an 800-ton vertical hydraulic press, from a container with an inside diameter of 80 mm. Rods measuring 50-25 mm in diameter, with various thicknesses of cladding layer, were thus produced from such materials as, chiefly, St. 3 steel as the core and Kh18N9T Ni-Cr steel as the cladding sheath. The extrusion was performed on using a container heated to 400°C and a die heated to 250-300°C. The pattern of distribution of the cladding layer along the length of the bimetal rods was investigated by comparing the variation in the cross-

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ACC NR: AT6016765

2

-sectional area of the base-metal core under various conditions of extrusion and correlating it with the formulas for the volumetric content of the cladding and base materials. It was thus found that the flow pattern of metal through the die hole is a major factor in determining the lengthwise pattern of distribution of the cladding sheath and hence also the geometry of the base-metal core; it can be optimized by retarding the flow of the core metal during the initial stage of extrusion. In view of the considerable advantages of the hot pressing of bimetal shapes as compared with their hot and cold rolling, it is expedient to organize this pressing on an industrial scale. This will make it possible to: 1) expand the current variety of bimetals; 2) obtain bimetal shapes with various combinations of metals, as well as with intricately shaped cross sections which cannot be obtained by rolling; 3) produce small lots of bimetal shapes at lower cost compared with rolling; 4) reduce by 40-50% the unit consumption of expensive and scarce metals and alloys. Orig. art. has: 6 figures, 1 table, 2 formulas.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 005

Sheath Rolling

Joining of Dissimilar Metals

Card 2/2 III

L 36140-66	EWP(e)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/ETI/EWP(k)	IJP(c)	JD/HM
ACC NR: AT6016766	(N)	SOURCE CODE: UR/2776/65/000/042/0101/0106	30 41 Bt

AUTHOR: Chernov, A. N.; Golovanenko, S. A.; Gulyayev, V. V.

ORG: none

TITLE: Investigation of the bonding strength of layers in hot-pressed bimetal

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 42, 1965. Proizvodstvo bimetallov (Production of bimetals), 101-106

TOPIC TAGS: ^{BONDING PROPERTY}, chromium steel, nickel steel, metal pressing, adhesion, metal bonding, bimetal, metal cladding / St. 3 steel, Kh18N9T steel

ABSTRACT: By contrast with rolling, during pressing the core and sheath of a round bimetal shape get bonded together simultaneously over the entire contour in the presence of a uniform distribution of radial compressive stresses in the area of deformation. As a result, during pressing the shape of the core remains virtually undistorted and the adhesion (bonding) between the core and sheath is greater. In this connection, the authors investigated the strength of the adhesion of sheath to core for bimetal rods of St. 3¹ steel and Kh18N9T Cr-Ni steel produced by hot pressing in an 800-ton vertical hydraulic press. To this end, the rod specimens were subjected to core-extrusion and twisting tests. The extrusion tests and twisting showed that shear

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ACC NR: AT6016766

resistance depends not only on the degree of relative reduction in area but also on the content of the cladding layer. Thus, for rods of 25 mm diameter subjected to pressing with a 91% relative reduction in area, shear resistance increases with increase in volumetric content of cladding layer (Fig. 1). Reason: as the content of the

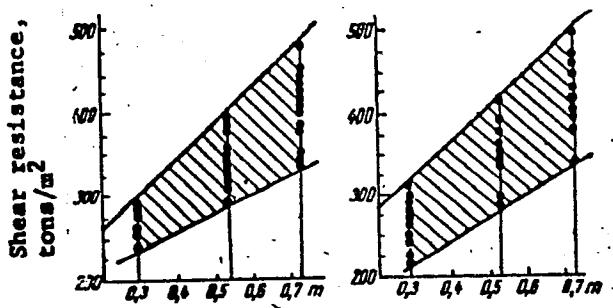


Fig. 1. Shear resistance as a function of volumetric content m of the cladding layer:

a - during extrusion of core; b - during twisting

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2

hard component increases, the pressure that must be exerted on the bimetal also increases and this, in its turn, contributes to increasing the adhesion between the layers. Adhesion strength is also markedly affected by such factors as the quality of surface treatment and the techniques of the assembling and welding of the original bimetal blanks. On the basis of these tests it may be concluded that the minimum required strength of the bonding between the layers, which for bimetal sheets of St. 3 and Kh18N9T steels amounts to 15 kg/mm^2 , can be attained for rods with even a relatively thin cladding layer ($m = 0.3$) by applying a relative reduction area amounting to 70-80%, which corresponds to reduction by a factor of 3.3-5.0. As the volumetric content of the hard component (cladding material) increases from 0.3 to 0.7, bonding strength increases 1.3-1.4 times. Orig. art. has: 5 figures.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 002

Joining of Dissimilar Metals A

Card 3/3 *lll*

FRENTS, Galina Sergeyevna; CHIZHIKOV, D.M., otv. red.; CHERNOV,
A.N., red.; KYLINA, Yu.V., tekhn. red.

[Oxidation of metal sulfides] Okislenie sul'fidov metal-
lov. Moskva, Izd-vo "Nauka," 1964. 189 p.
(MIRA 17:4)

1. Chlen-korrespondent AN SSSR (for Chizhikov).

CHERNOV, A.N.; FAYNBOYM, I.B., red.; KUDRYAVTSEVA, O.V., tekhn.
red.

[Scientific work of L.D.Landau] Nauchnoe tvorchestvo L.D.
Landau; sbornik. Moskva, Izd-vo "Znanie," 1963. 30 p.
(Novoe v zhizni, nauke, tekhnike. IX Seriya: Fizika i
khimiia, no.21) (MIRA 16:12)
(Landau, Lev Davydovich, 1908-)

Chernov, A.P.

USSR/Soil Science - Mineral Fertilizers.

J-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10529

Author : Chernov, A.P.

Inst : Stavropol' Agricultural Institute.

Title : Some Elements of Root Nourishment in the Central Northern Caucasus /Predkavkazskiy/ Chernozem Area in Connection with Fertilizer Application and Hay Yields from Perennial Rye

Orig Pub : Sb. nauchno-issled. rabot stud. Stavropol'sk. s.-kh. in-t, 1956, No 4, 37-39

Abstract : On the basis of field and laboratory experiments the author arrives at the conclusion that Kravkov's method of investigating soil types makes it possible to clarify the reserves of fundamental nutritive elements and in this way, to some extent, to predetermine the effectiveness of certain

Card 1/2

USSR/Soil Science - Mineral Fertilizers.

J-4

Abs Jour : Ref Zhur. - Biol., No 3, 1958, 10529

variants of field experiments. He also concludes that the joint application of organic and mineral fertilizers is of practical significance for this particular region.

Card 2/2

CHERNOV, A.P.

VULIS, A.A.; TEREKHINA, N.N.; CHERNOV, A.P.

Laws of the propagation of compressible flows. Vest.AN Kazakh.SSR 10 no.9:
76-91 S '53. (MIRA 6:11)

(Aerodynamics) (Gases, Flow of)

CHERNOV, A. P.

"Investigation of Particle Movement in a Free Dust-Air Stream."
Cand Tech Sci, Inst of Power Engineering, Acad Sci Kazakh SSR,
Alma-Ata 1954. (RZhMekh, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical
Dissertations Defended at USSR Higher Educational Institutions
(14)

SOV/124-57-9-10634

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 9, p 113 (USSR)

AUTHOR: Chernov, A. P.

TITLE: On the Coefficient of Flow Resistance of Small Solid Particles (O koeffitsiyente soprotivleniya melkikh tverdykh chastits)

PERIODICAL: Izv. AN KazSSR, ser. energ., 1955, Nr 9, pp 160-166

ABSTRACT: The author investigates the discrepancy between the results of his work (RZhMekh, 1956, abstract 6061) on determination of the magnitude of the coefficient of flow resistance of small particles in a stream of air with the results obtained by G. N. Khudyakov (RZhMekh, 1954 abstr. 4474). Whereas the author's values for the coefficient of flow resistance of particles of irregular shape were greater than the values observed in the case of a sphere of equivalent diameter, the corresponding values obtained by G. N. Khudyakov were smaller. The author is of the opinion that G. N. Khudyakov's attempt to explain this result by the rotation of the particles is inadequate, because not all of the particles in the current are rotating and because the rotation would have little effect upon the coefficient of flow resistance at the velocities involved. The author attributes the results obtained by

Card 1/2

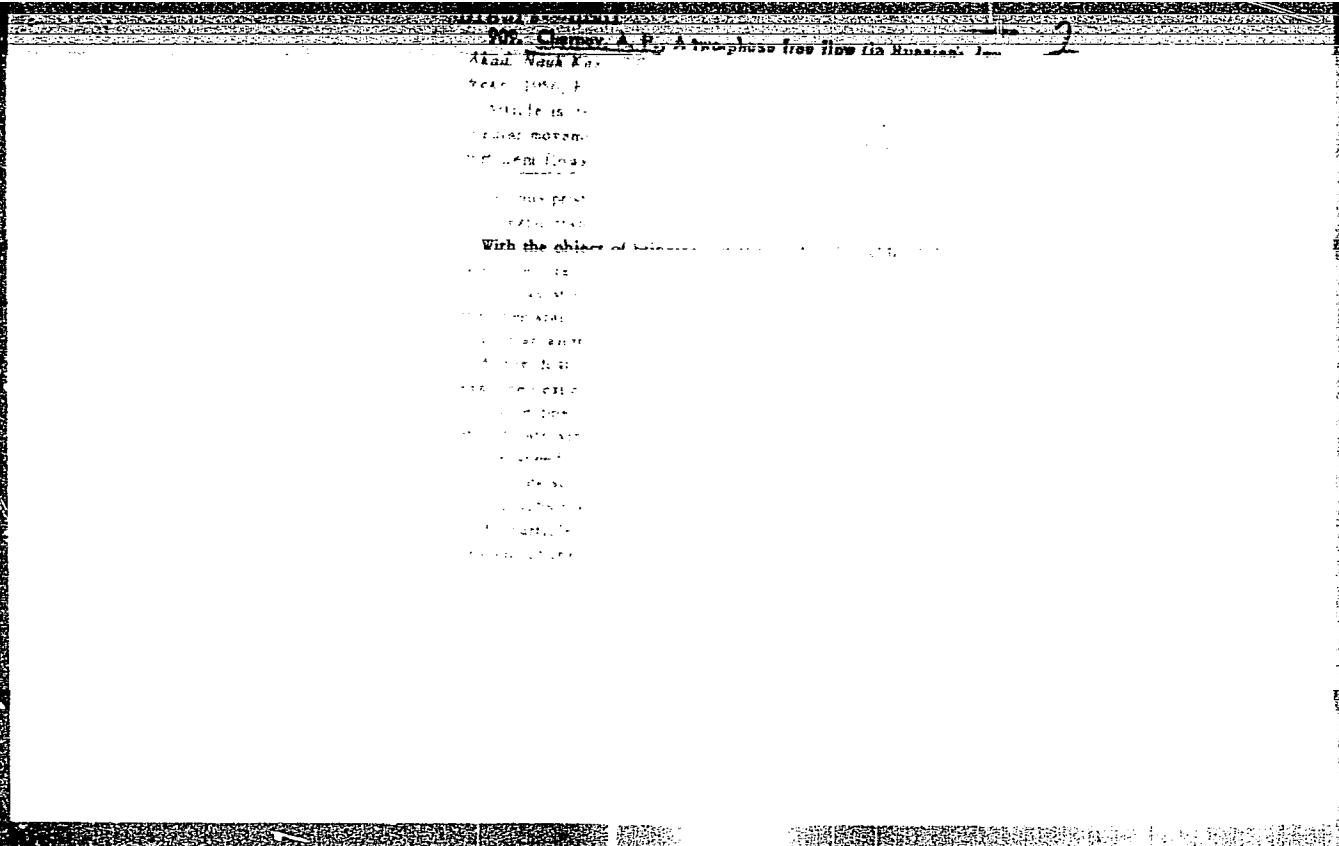
SOV/124-57-9-10634

On the Coefficient of Flow Resistance of Small Solid Particles

G. N. Khudyakov to insufficiently accurate determination of the velocities of the particles as well as to inaccurate graphical differentiation of the distribution of their velocity along the tube. Upon re-working the experimental data of G. N. Khudyakov, the author utilizes his points to plot another set of curves and, upon differentiation, arrives at different values of the coefficients of flow resistance of irregularly shaped particles which are greater than those obtained for a sphere of equivalent diameter.

G. I. Barenblatt

Card 2/2



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APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8"

CHERNOV, A.P.

Coefficient of resistance of fine solid particles. Izv.AN Kazakh
SSR.Ser.energ. no.9:160-166 '55. (MLRA 9:5)
(Particles) (Air flow)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8

1941 - 1945 A.P. Resistance
Soviet Counter Espionage in Russia
by John D. French, No. 1

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"APPROVED FOR RELEASE: 06/12/2000

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CIA-RDP86-00513R000308530004-8

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8"

SOV/112-58-2-1890

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 2, p 15 (USSR)
AUTHOR: Bukhman, S. V., and Chernov, A. P.

TITLE: On the Problem of Particles Motion in a Free Axially Symmetrical Jet
(K voprosu o dvizhenii chastits v svobodnoy osesimmetrichnoy struye)

PERIODICAL: Izv. AN KazSSR, ser. energ., 1956, Nr 10, pp 114-118

ABSTRACT: Motion of particles in a 2-phase axially symmetrical jet depends on the following: particle coordinates, their mass, their density, "Midel" cross-section, radius of the nozzle out of which the jet emerges, etc. However, this motion can be described with a much smaller number of dimensionless complexes, which can be determined from the equation of particles motion and from the rate-of-discharge formulae. An example is considered of determining particles velocity in a free, axially-symmetrical dust-and-air stream. Experimental and calculated particle velocities are compared.

S.L.R.

Card 1/1

SOV / 124-58-5-5257

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 44 (USSR)

AUTHOR: Chernov, A.P.

TITLE: On Methods for Measuring Power Losses in Engines for the Purpose of Eliminating Frictional Power Losses (O metodakh izmereniya poter' moshchnosti dvigatelya na preodoleniye vrednykh sопrotivleniy)

PERIODICAL: Izv. AN KazSSR. Ser. energ., 1956, Nr 10, pp 128-132

ABSTRACT: Various methods are examined for determining the friction power losses in an engine. To determine an engine's mean moment of friction, the method of letting the engine run down (to a stop) is virtually no longer used, because the calculation of the reduced moment of inertia of the moving parts is laborious and the calculations are not very accurate. The author proposes two simple methods for an experimental determination of the reduced moment of inertia of the moving parts: 1) the method of a supplementary mass, i.e., allowing the engine to run down to a stop naturally, first without a flywheel, then with a flywheel having a known moment of inertia; and 2) the method of external braking, i.e., allowing the engine first to run down to

Card 1/2

SOV / 124-58-5-5257

On Methods for Measuring (cont.)

a stop naturally, without applying a brake, then repeating the process, using a brake. Simple formulae are obtained for determining the mean moment of friction and reduced moment of inertia of an engine's moving parts.

V.A. Bashkin

1. Engines--Friction
2. Engines--Performance
3. Engines--Test methods
4. Mathematics--Applications

Card 2/2

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8

KRYZHANOVSKIY, V.A., inzh.; CHERNOV, A.P., inzh.

Starting and turning on units of superhigh steam parameters.
Elek.sta. 29 no.11:14-18 N '58. (MIRA 11:12)
(Electric power plants) (Steam, High-pressure)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8"

CHERNOV, A.P.

Investigation of the separation of dust on a viscous film coating around the pipe bunch. Izv. AN Kazakh. SSR. Ser.energ. no.1:87-96 '59. (MIRA 12:11)

(Heat engineering)

KUTYLOVSKIY, Mikhail Petrovich; CHERNOV, A.P., red.; OTOCHEVA, N.A.,
red.izd-va; LELYUKHIN, A.A., tekhn.red.

[Electric equipment for the rolling stock of street railways]
Elektricheskoe oborudovanie podvizhnogo sostava tramvaiia.
Izd.2., perer. i dop. Moskva, Izd-vo M-va kommun.khoz.RSFSR,
1960. 371 p. (MIRA 13:11)
(Street railways--Cars)

CHERNOV, A.P.; UL'YANOV, A.V.

Investigating the stream leaving the cyclone chamber.
Izv.AN Kazakh.SSR Ser.energ. no.2:90-100 '60.
(MIRA 13:?)
(Metallurgical furnaces—Aerodynamics)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8

SPODYRYAK, N.T.; CHERNOV, A.P.; FAVORSKIY, V.V.; SALTYKOV, P.I.

Experience in burning Ekibastuz coals in fuel bed furnaces.
Trudy Inst.energ.AN Kazakh.SSR 3:178-189 '61. (MIRA 14:12)
(Ekibastuz Basin-Coal)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308530004-8"

CHERNOV, A.P.

Dust flow around a stationary cylinder. Trudy Inst.energ.
AN Kazakh.SSR 3:2(1-211 '61. (MIRA 14:12)
(Dynamics of a particle)
(Dust-Removal)

S/196/62/000/018/013/017
E194/E155

AUTHOR: Chernov, A. P.

TITLE: The flow of dusty air over a stationary cylinder

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika,
no. 18, 1962, 3, abstract 18 G 5. (Tr. In-ta energ.
AN KazSSR, no. 3, 1961, 201-211).

TEXT: A procedure is proposed for calculating the trajectory of motion and the coefficient of particle separation when dusty air flows over a cylinder. The calculations plotted reflect the qualitative and quantitative nature of observed flow. A diagram and description is given of the experimental equipment that was used to study the trajectory of particles. Twenty tests were made, with dusts of rosin, boric acid, river sand and chromo-magnesite, having specific gravities of 0.95; 1.4; 2.7; and 3.9 g/cm³ respectively. From study of cinematograph films of the trajectory of solid particles, the following could be determined: particle speed, start of deflection from rectilinear flow, extent of maximum deflection and separation factor.

Card 1/2

The flow of dusty air over a ...

S/196/62/000/018/013/017
E194/E155

It was found that the separation factor and the maximum deflection of particles from the cylinder depend on various parameters: the particle size, the density, rate of flow and cylinder diameter. In general, the two quantities are fully determined by Stokes criterion alone. Good agreement is noted between calculated and experimental data.
6 figures.

[Abstractor's note: Complete translation.]

Card 2/2

CHERNOV, A.P.

Aerodynamic study of spherical chambers. Inzh.-fiz. zhur. 8 no.6:815-
819 Je '65.
(MIRA 18:7)

1. Institut energetiki AN Kazakakoy SSR, Alma-Ata.

L 42023-65 11/1971/C21
ACCESSION NO.: A7501404

AUTHORS: Goryainov, N. N.; Vlasov, S. S.
B. I.

TITLE: Hydrodynamic ultrasonic emulsion

SOURCE: Byull. Izobret. i izobretatel'nyi tovar

TOPIC TAGS: emulsifier; ultrasonic emulsion

ABSTRACT: The Author's certificate provides for a method consisting of a nozzle in the form of a resonance plate for obtaining finely dispersed emulsions from a liquid (the resonance plate is mounted in a nozzle, as shown on the enclosure). Orig. art. has:

ASSOCIATION: Organizatsiya gosudarstva
(Organization of the State Committee)

SUBMITTED: 13Jul64

NO REP SCV: OK
Card 1/2

CHERNOV, A.P.

Investigating the slag of the coals of Ekibastuz deposit.
Izv. AN Kazakh. SSR. Ser. tekhn. i khim. nauk no.2:116-125 '63.
(MIRA 17:2)

CHERNOV, A.S., inzh.

Raience and enameled cast-iron sanitary engineering fittings.
Biul.tekh.inform.po stroi. 5 no.9:31 S '59.

(MIRA 12:12)

(China--Sanitary engineering)

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SUB COPIE: 37

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Card 2/2

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CIA-RDP86-00513R000308530004-8"

YAKUSHKIN, I.V., akademik, redaktor; MARINICH, P.Ye., agronom, redaktor;
CHERNOV, A.V., redaktor; PEVZNER, V.I., tekhnicheskiy redaktor

[Grain and pulse crops] Zernovye i zernobobovye kul'tury. Izd. 4-oe,
perer. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 351 p. (MIRA 10:1)
(Field crops)

CHERNOV, A. V.

PAVLOV, M. I., glavnnyy metodist; NIYAZOV, M. K.; YEFREMOV, Yu. K., otvetstvennyy redaktor; CHERNOV, A. V., redaktor; VESKOVA, Ye. I., tekhnicheskiy redaktor

[The "Turkmen S.S.R." pavilion; a guidebook] Pavil'on "Turkmenskaia SSR"; putesvoditel'. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 22 p.

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-
2. Direktor pavil'ona (for Niyazov)
(Turkmenistan--Agriculture)
(Moscow--Agricultural exhibitions)

CHERNOV, A.V., redaktor; GUREVICH, M.M., tekhnicheskiy redaktor

[High yields from non-Chernozem zones; the practice of leaders in
Vladimir Province] Za vysokie urozhai v nechernozemnoi polose; iz
opyta pereodovykh khoziaistv Vladimirskei oblasti. Moskva, Gos. izd-
vo selkhoz. lit-ry, 1956. 106 p. (MIRA 9:12)
(Vladimir Province--Agriculture)

CHERNOV, A.V.

BENEDIKTOV, I.A., redaktor; GRITSENKO, A.V., redaktor; IL'IN, M.A., zamesttel' glavnogo redaktora; LAPTEV, I.D., LISKUN, Ye.F.; LOBAHOV, P.P., glavnnyy redaktor; LYSENKO, T.D.; SKRYABIN, K.I.; STOLIKOV, V.N.; PAVLOV, G.I., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SOKOLOV, N.S., professor, nauchnyy redaktor; ANTIPOV-KARATAYEV, I.N., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KARPINSKIY, N.P., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SHESTAKOV, A.G., doktor sel'skokhozyaystvennykh nauk, professor, nauchnyy redaktor; RUBIN, B.A., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KOMARNITSKIY, N.A., dotsent, nauchnyy redaktor; LYSENKO, T.D., akademik, nauchnyy redaktor; POLYAKOV, I.M., professor, nauchnyy redaktor; SHCHEGOLEV, V.N., doktor sel'skokhozyaystvennykh nauk, professor, nauchnyy redaktor; YAKUSHKIN, I.V., akademik, nauchnyy redaktor; LARIN, I.V., professor, doktor biologicheskikh nauk, nauchnyy redaktor; SMELOV, S.P., professor, doktor biologicheskiy nauk, nauchnyy redaktor; EDELSHTAKIN, V.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SHCHERBACHEV, D.M., professor, doktor meditsinskikh nauk, nauchnyy redaktor; OGOLEVETS, G.S., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor; YAKOVLEV, P.N., akademik, nauchnyy redaktor; YEKIMOV, V.P., agronom, nauchnyy redaktor [deceased], YETINGEN, G.P., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; TIMOFEEV, N.N., professor, nauchnyy redaktor; TUROV, S.I., professor, doktor biologicheskikh nauk; YUDIN, V.M., akademik, nauchnyy redaktor; LISKUN, Ye.F., akademik, nauchnyy redaktor; VITT, V.O., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; KALININ, V.I., kandidat sel'skokhozyaystvennykh nauk, nauchnyy redaktor.

(Continued on next page)

BENEDIKTOV, I.A.---- (continued) Card 2.

GRIBEN', L.K., akademik, nauchnyy redaktor; NIKOLAYEV, A.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; RED'KIN, A.P., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; SMETNEV, S.I., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; POPOV, I.S., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; MANTKOV, P.A., professor nauchnyy redaktor; INIKHOV, G.S., professor, doktor khimicheskikh nauk, nauchnyy redaktor; ANFIMOV, A.N., professor, nauchnyy redaktor; GUBIN, A.F., professor, doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; POLTEV, V.I., professor, doktor veterinarnykh nauk, nauchnyy redaktor; LINDE, V.V., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; CHERGAS, B.I., professor, doktor biologicheskikh nauk, nauchnyy redaktor; NIKOL'SKIY, G.V., professor, nauchnyy redaktor; AVTOKRATOV, D.M., professor, doktor veterinarnykh nauk, nauchnyy redaktor; IVANOV, S.V., professor, doktor biologicheskikh nauk, nauchnyy redaktor; VIKTOROV, K.P., professor, doktor veterinarnykh nauk, nauchnyy redaktor; KOLYAKOV, Ya.Ye., professor, doktor veterinarnykh nauk, nauchnyy redaktor; ANTIFIN, D.N., professor, doktor veterinarnykh nauk, nauchnyy redaktor; MARKOV, A.A., professor, doktor veterinarnykh nauk, nauchnyy redaktor; DOMRACHEV, G.V., professor, doktor veterinarnykh nauk, nauchnyy redaktor; OLIVKOV, B.M., professor, doktor veterinarnykh nauk nauchnyy redaktor [deceased]; FLEGMATOV, N.A., professor, doktor veterinarnykh nauk, nauchnyy redaktor; BOLTINSKIY, V.N., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; VIL'YAMS, Vl.P., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; KRASNOV, V.S., kandidat tekhnicheskikh nauk, nauchnyy redaktor;

BENEDIKTOV, I.A.---(continued) Card 3.

YEVREINOV, M.G., akademik, nauchnyy redaktor; SAZONOV, N.A., doktor tekhnicheskikh nauk, nauchnyy redaktor; NIKANDROV, B.I., inzhener, nauchnyy redaktor; KOSTYAKOV, A.N., akademik, nauchnyy redaktor; CHERKASOV, A.A., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; DAVITAYA, F.F., doktor sel'skokhozyaystvennykh nauk, nauchnyy redaktor; IVANOV, N.N., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; ORLOV, P.M., professor, doktor tekhnicheskikh nauk, nauchnyy redaktor; LOZA, G.M., kandidat ekonomicheskikh nauk, nauchnyy redaktor; CHERNOV, A.V., kontrol'nyy redaktor; ZAVARSKIY, A.I., redaktor; ROS-SOSHANSKAYA, V.A., redaktor; FILATOVA, N.I., redaktor; YEMEL'YANOVA, N.I., redaktor; SILIN, V.S., redaktor BRANZBURG, A.Yu., redaktor; MAGNITSKIY, A.V., redaktor terminov; KUDRYAVTSEVA, A.G., redaktor terminov; AKSENOVA, A.P., mladshiy redaktor; MALYAVSKAYA, O.A., mladshiy redaktor; FEDOTOVA, A.F., tekhnicheskiy redaktor

(Continued on next card)

BENEDIKTOV, I.A.---(continued) Card 4.

[Agricultural encyclopedia] Sel'skokhoziaistvennaya entsiklopedia.
Izd.3-e, perer. Moskva, Gos. izd-vo selkhoz. lit-ry. Vol.5. [T-IA.]
1956. 663 p.
(Agriculture—Dictionaries and encyclopedias)

CHERNOV, A. V.

Agricultural economics. Vop.ekon. no.6:135-138 Je '60.
(MIRA 13:6)

(Ukraine--Agriculture--Economic aspects)
(Agriculture--Economic aspects--Ukraine)

FRANK, G.A., kand.tekhn.nauk; CHERNOV, A.V., inzh.

Manufacturing porous ceramics with a base of burned out granulas.
Sbor. trud. NII po stroi. ASiA [Rost.] no.6:73-81 '62. (MIRA 17:9)

VERVEVKINA, A.K., inzh.; KOLCHINSKIY, Yu.L., inzh.; NIKOLAYEVSKIY, Ye.Ye., inzh.; RODIONOVA, R.G., inzh.; RYAPOLOV, A.F., inzh.; SOKOL, I.A., inzh.; STERLIN, S.L., inzh.; EYDEL'NANT, L.B., inzh.; ORLOV, V.M., kand. tekhn. nauk, retsenzent; YURGEL', B.I., inzh., retsenzent; FOKIN, V.Ya., inzh., nauchn. red.; VOLNYANSKIY, A.K., glav. red.; SUDAKOV, G.G., zam. glav. red.; IOSELOVSKIY, I.V., red.; MARKOV, I.I., red.; MEL'NIK, V.I., red.; ONKIN, A.K., red.; STAROVEROV, I.G., red.; TUSHNYAKOV, M.D., red.; CHERNOV, A.V., red.

[Engineering pipelines for industrial enterprises] Tekhnologicheskie truboprovody promyshlennyykh predpriiatii. Moskva, Stroizdat, 1964. 2 v. (MIRA 17:12)

CHERNOV, ALEKSANDR VASIL'YEVICH

N/5
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Kirpichnyye Dymovyye Truby (Brick Chimneys, by) A. V. Chernov i V. A. Volyntsev. Moskva, Gosstroyizdat, 1955.
127 p. Illus., Diagrs.,

BEL'SKIY, V.I.; CHERNOV, A.V., inzhener; TKBEN'KOV, B.P., kandidat tekhnicheskikh nauk, nauchnyy redaktor.

[Building industrial furnaces] Stroitel'stvo promyshlennykh pechesi. Moskva, Gos. izd-vo lit-ry po stroitel'stu i arkhitekture, 1953. 411 p.

(MLRA 7:4)
(Furnaces--Construction)

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CIA-RDP86-00513R000308530004-8

CHIRKOV, ALEKSANDR VASIL'YEVICH

KORNEYCHUK, Nikolay Karpovich; CHERNOV, Aleksandr Vasili'yevich; SHERSTYUK,
A.N., nauchnyy redaktor; KOGACHEV, F.V., redaktor; RAKOV, S.I.,
tekhnicheskiy redaktor

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Kh.M.; KEIMAKH, L.I., retsenzent; KUDRYAVTSEV, A.V., retsenzent;
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A.P., nauchnyy red.; SOLODENNIKOV, L.D., nauchnyy red.; TOLKACHEV,
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inzh., retsenzent; FOKIN, V.Ya., inzh., retsenzent; VOLNYANSKIY, A.K.
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Dissertation: Exchanges of Internal Organs during
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Infection)

Degree: Doc Med Sci

Affiliation: /Not indicated/

Defense Date, Place: 10 Jan 56, Council of Central Inst for
Advanced Training of Physicians

Certification Date: 27 Oct 56

Source: BMVO 6/57

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CHERNOV, B. (Dr.)

<p style="text-align: center;">Soviet Medical Research, No. 5, 1951</p> <p style="text-align: right;">(K)</p>	
<p>1. Who Role of the Auxiliary Medical Workers in the Struggle Against Scarlet Maceropathy, Dr. Th. K. Chernov and Dr. E. S. Slobodchikova, of the Scientific Research Institute of Practical Child Health (Institute of Pediatrics) pp 10-14.</p>	
<p>2. Therapeutic and Diagnostic Work in Infectious and Dr. St. R. L. Gerasimov, of the Scientific Research Institute of Pediatrics (Institute of Pediatrics) pp 17-19.</p>	
<p>3. Preventing Injuries and Sick People with the Help of Nurses, Dr. G. V. Kostyleva, Professor (Professorial) of the Obstetrics and Gynecology Department of the Financial Department Service at the Central Board of the Russian Red Cross (Central Bureau of the All-Union Committee of Protection of Maternal and Child Health, Moscow) pp 20-22.</p>	
<p>4. New Psychological Methods and Means Involving Dosemetric Means (Dosemeterics), Dr. V. I. Klyuyev, of the Biocytological Psychological Association (Biosociotropopervision Polyclinic), Sochi pp 25-31.</p>	
<p>5. Treating Children in Pediatric Therapeutics and Physiotherapy Institutions, N. A. Nekrasov, Professor, and N. N. Romanova, Researcher and Associate Researcher Institute of Pediatrics (IPPI) pp 32-35.</p>	
<p>6. Who Doctor Visits in the Villages of the USSR, N. S. Karpov and S. S. Seregin, Dr. I.S., Moscow pp 35-50.</p>	
<p>7. Who Nurses of District Nurses and Their Work with Patients Patients in Practicing Patients at Home, Dr. N. N. Tolstaya, Head (Generalian) of the Internal Medicine Department of the City Hospital (Voronezh) -Ordinary (N.I.T. Hospital Building), Voronezh pp 39-41.</p>	

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APEL'TSYN, I.N., doktor tekhn.nauk; BARS, Ye.A., kand.geol.-min.nauk;
BORISOV, Yu.P., kand.tekhn.nauk; VELIKOVSKIY, A.S., prof.; VYSOTSKIY,
I.V., kand.geol.min.nauk; GOVOROVA, G.L., dots.; DAKHNOV, V.N., prof.
ZHDANOV, M.A., prof.; ZHUKOV, A.I., dots.; KOTYAKHOU, F.I., prof.;
KREMS, A.Ya., doktor geol.-min.nauk; MURAV'YEV, I.M., prof.;
MUSHIN, A.Z., inzh.; NAMIOT, A.Kh., kand.tekhn.nauk; KHODANOVICH,
I.Ye., kand.tekhn.nauk; KHLYSTOV, V.T., inzh.; CHERNOV, B.G., kand.
tekhn.nauk; SHUROV, V.I., dots.; SAVINA, Z.A., vedushchiy red.;
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neft. i gorno-toplivnoi lit-ry. Vol. 1. 1958. 540 p. (MIRA 11:4)
(Petroleum industry)

AUTHORS:

Chernov, B. G., Ageyev, P. Ya.

SOV/163-58-2-7/46

TITLE:

Physical and Chemical Fundaments of Metal Melting in Vacuum and Protective Gas Atmosphere (Fiziko-khimicheskiye osnovy plavki metallov v vakume i v zashchitnoy atmosfere)

PERIODICAL:

Nauchnyye doklady vysshyey shkoly. Metallurgiya, 1958, Nr 2,
pp. 43-49 (USSR)

ABSTRACT:

The theoretical basis of the melting methods of metals in vacuum and protective gas atmosphere were discussed. In melting metals consisting of Armco iron and chromium the nitrogen and carbon content of the metal is not affected by the chromium content during the melt. The dependence between the nitrogen concentration and the chromium content of the metal in vacuum melting were investigated. From these investigations may be seen that with an increase of the chromium content in the metal a deterioration of the refining process of the metal from nitrogen in the melting of the alloys occurs. The behaviour of some elements in the metals in their melting in vacuum and protective gas atmosphere was investigated. It was found that when the melting process is carried out in a protective gas atmosphere

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SOV/163-58-2-7/46

Physical and Chemical Fundamentals of Metal Melting in Vacuum and Protective
Gas Atmospheres

of neutral gases the loss in melting the alloys is practically removed and the production of pure metals of the desired chemical composition is made easier. The changes of the oxygen and nitrogen content in Armco iron at different argon pressure were investigated. Melts in argon atmosphere at low pressure do not lead to a sufficient refining of the metals. There are 5 figures and 2 tables.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute)

SUBMITTED: October 1, 1957

Card 2/2

CHERNOV, B. G.

ДЕГАЗАЦИЯ СТАЛИ И СПЛАВОВ

М.А.Шумков
П.В.Горын
Ф.А.Седовский

Некоторые особенности процесса

рассыпного ферросилиция.

Р.А.Ребе
П.В.Горын

Влияние угарных газов на легирование

стали.

Г.Н.Смирнов
А.Ю.Панков
А.М.Самарин

Особенности рассыпания стали при

дуговом вакуумном переплаве.

А.М.Самарин
М.П.Кузнецов
Д.П.Ульянов
Л.М.Невин

Повышение качества бесконвертерного

процесса методом вакуумной обработки

в газах.

А.И.Лягутов
Г.Н.Озёров
И.Н.Альшанс
Г.А.Соловьев
В.И.Давыдов
В.Э.Козлов

Некоторые вопросы производства ме-

тодом вакуумной переплавки стали с приме-

нением вакуума.

П.Н.Агапов
В.Г.Чернов

Влияние легирования на вакуумное

испарение и залывку при залывке сти-

о вакууме.

И.В.Попов
Э.Н.Сорокинский

Влияние газометрических факторов

на содержание газов в промежу-

точках выплавки в переплавленной

стали.

Т.М.Федорова
Н.Г.Бобрович
Е.С.Колесников

Влияние вакуумирования при залыв-

ке из шихты в ковш на качество

стали ЗИПТСН.

17

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~~of the~~ ^{of} smelting ^a alloys in a vacuum and ^a neutral medium." Len, 1959,
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M.I. Kalinin) 150 copies (KL, 28-59, 128)

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88496

S/133/60/000/012/004/015
A054/A027

1.1720

AUTHORS: Ageyev, P.Ya., Doctor of Technical Sciences, Professor, and
Chernov, B.G., Assistant

TITLE: Influence of Alloying Elements on the Behavior of Oxygen and
Nitrogen in Melting Alloys in Vacuum

PERIODICAL: 'Stal', 1960, No. 12, pp. 1093-1096

TEXT: From theoretical investigations of the optimum conditions of oxygen and nitrogen removal from the liquid metal during melting in vacuum furnaces it was found that the degree of degasification depends on the partial pressures of gases to be separated in the melting area. The lower the partial pressure of the given gas in the gas phase, the more complete its removal from the metal. Calculations (based on Bachinskiy's theorem) also prove that low pressures promote the removal of gases, in the form of blisters, and that they accelerate this gas removal by improving the conditions for the formation of the next phase and by enlarging the blisters. In order to verify this theory and to make a thorough study of the influence of various conditions of melting and of metal composition on the gas separation, tests were carried out in M8T-3M

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Influence of Alloying Elements on the Behavior of Oxygen and Nitrogen in Melting Alloys in Vacuum

(MVP-3M) and OK6-497 (OKB-497) type vacuum furnaces and standard type aluminum oxide crucibles. Melting was carried out at various pressures of the inert gas which was introduced into the furnace after this had been evacuated to a vacuum of 1.10^{-4} - 5.10^{-5} mm mercury column. This insured that in the melts with various total pressures the oxygen and nitrogen had equal partial pressures in the melting area. In order to prevent the change in gas phase during melting by the gases separating from the metal, the melting area was "flushed" with clean argon. Holding the liquid metal in vacuum and in argon atmosphere for 10 minutes gave various results for oxygen removal (Fig. 1). In melts in vacuum (10^{-2} - 10^{-4} mm mercury column) the oxygen content of the metal is 5-10 times lower than when melting in argon atmosphere, under pressures of 50-760 mm mercury column. The decrease in total pressure in the melting area also lowers the nitrogen content of the metal (Fig. 2). It could thus be established that by melting in vacuum the gases can be removed more completely than when melting takes place in an inert atmosphere. To determine the influence of various alloying elements, meltings were carried out in which the effects of silicium,

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A054/A027

Influence of Alloying Elements on the Behavior of Oxygen and Nitrogen in Melting Alloys in Vacuum

aluminum, chromium, niobium and titanium on gas removal were examined. It was found that these elements considerably impeded the separation of oxygen from the metal. The higher the amount of these alloying elements in the metal, the more oxygen remains therein. It was also found that by holding the liquid metal in vacuum, oxygen removal was more complete. The delay in oxygen-separation under the influence of the above mentioned alloying elements can be explained by the deterioration of kinetic and thermodynamic conditions of the chemical reaction: $C + O \rightarrow CO$ (7). In the presence of the above mentioned elements oxygen can be separated, at least to some extent, by the formation of the respective oxides of these elements which, of course, takes more time than the removal of oxygen in the form of CO. With regard to the removal of nitrogen from the metal it was found that these alloying elements delayed the separation of nitrogen because (mainly at a low carbon content) they form stable nitrodes with N and adversely affect the conditions for the formation of carbon-oxide blisters. However, increasing the holding time in vacuum improves the results also in this case, i.e., more nitrogen gas can be separated. When alloying the liquid metal with elements having high affinity to oxygen and nitrogen,

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